



Technical Data Sheet

Spectra 440 Mid Range Hyperplasticizing Concrete Admixture



Description

SPECTRA 440 is a high performance Hyper plasticizing with superior slump retention admixture based on Modified Generation of polycarboxylic ether polymers with long chains specially designed to enable the water content of the concrete to perform more effectively with extremely high slump retention.

This effect can be used in high strength concrete and flowable concrete mixes, to achieve highest concrete durability and performance.

SPECTRA 440 conforms to the requirements of ASTM C494 Type G and EN 934-2 Table 11.1 and 11.2.

Application

SPECTRA 440 is excellent to achieve highly flowable concrete to aid workability demand of pumping to high-rise structures.

Ready mix producers, Civil Contractors and DIY professionals use **SPECTRA 440** in the production of concrete for structures such as slabs and foundations, walls, columns, slender components with densely packed reinforcement, textures surface finishes, and **Self-Compacted Concrete** SCC, the performance may be affected by the presence of other chemicals.

Trial mixes are recommended to ensure design parameters are attained. It is compatible with local cements and cementitious replacements such as slag, GGBFS and Microsilica.

Advantages

SPECTRA 440 is Hyper-plasticizer specially formulated to effect high range water reductions up to 30% leading to increase in compressive strength and improve in durability of concrete with extra high slump retention.

SPECTRA 440 provides excellent workability to concrete mixes so that concrete can be pumped easily to high level.

SPECTRA 440 has the ability to increase the fluidity of concrete at lower water cement ratio with minimum slump loss due to the higher polymer adsorption and steric hindrance effect.

Disclaimer:

We hope that the information herein will be helpful. The data is based upon knowledge considered to be accurate and true and is offered for the user consideration, investigation and verification in the application intended. We do not warrant the results or performance attained due to the nature of the influence of other constituent components in the application.

Technical properties

Appearance	Lumps free Liquid
Specific Gravity	1.08 ± 0.02
Total Chloride Content	Nil

Method of Use

Field Applications:

SPECTRA 440 can be added to the mixing water prior to its addition to the aggregates or directly to the freshly mixed concrete (the plasticizing effect is more pronounced).

For ready Mix Concrete, **SPECTRA 440** can be added to the concrete immediately prior to discharge and after further mixing has taken place for three minutes.

Dosage Rate

The guidance dosage of **SPECTRA 440** is 0.50 to 2.25 liter per 100kg of cementitious materials in the mix, including GGBFS, PFA or Microsilica.

Representative trials should be conducted to determine the optimum dosage of **SPECTRA 440** to meet the performance requirements by using the materials and conditions in actual use.

Effects of overdosing:

When overdosing beyond the design limit occurs, the set retarding effects increases and may result in increased air content.

During this period the concrete must be kept moist in order to prevent premature drying out and ensure design strengths properties are not impaired.

Storage

SPECTRA 440 shelf life is 6 months from date of manufacture.

Cleaning

In case of spillage, wash it with clean water.



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Packaging

Available in bulk, 1000 Lt. Tote or in 210Lt. drums

Cautions

Health and safety

SPECTRA 440 is not a fire or health hazard. If however, it is spilled, the floor will become slippery and should be washed down with water immediately but should not be left to enter sewers/surface or ground water, in case of uncontrollable situation, wash it with plenty of water to dilute. In case of eye contact or ingestion, seek medical attention without delay. Do not dispose of into water or soil but according to local regulations.

Fire

SPECTRA 440 is non-flammable.



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